REMARKS

Reconsideration and allowance in view of the foregoing amendment and the following remarks are respectfully requested. Claim 35 is amended.

Rejection of Claim 35 Under 35 U.S.C. §112

The Office Action rejects claim 35 under 35 U.S.C. §112 for insufficient antecedent basis. Applicants have amended claim 35 as suggested by the Examiner to overcome this rejection. Applicants request withdrawal of the rejection of claim 35.

Priority

The Office Action asserts that there is no support in the priority application No. 60/245,521 for features within one or more of the claims. Applicants have cancelled the priority claim without prejudice or disclaimer. Applicants do anticipate filing a divisional application that maintains the priority claim, but to further prosecution of the present application do not contest the priority issue.

Rejection of Claims 34 and 36 Under 35 U.S.C. §103(a)

The Office Action rejects claims 34 and 36 under 35 U.S.C. §103(a) as being unpatentable over Gever et al. (U.S. Patent No. 6,329,994) ("Gever et al.") in view of Noot et al. (CharToon 2.0 Manual) ("Noot et al.") and Herman et al. (U.S. Patent No. 6,075,905) ("Herman et al."). Applicants respectfully traverse this rejection and submit that one of skill in the art would not have sufficient motivation or suggestion to combine these references and even if combined they fail to teach each limitation of the claims.

Applicants shall first discuss why, by a preponderance of the evidence, one of skill in the art would not have sufficient motivation or suggestion to combine these references.

To establish a *prima facie* case of obviousness, the Examiner must meet three criteria. First, there must be some motivation or suggestion, either in the references themselves, or in the

knowledge generally available to one of ordinary skill in the art, to combine the references. Second, there must be a reasonable expectation of success, and finally, the prior art references must teach or suggest all the claim limitations. The Examiner bears the initial burden of providing some suggestion of the desirability of doing what the inventor has done. "To support the conclusion that the claimed invention is directed to obvious subject matter, either the references must expressly or impliedly suggest the claimed invention or the examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references." MPEP 2142.

If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959). MPEP 2143.01.

Furthermore, if the examiner determines there is factual support for rejecting the claimed invention under 35 U.S.C. 103, the examiner must then consider any evidence supporting the patentability of the claimed invention, such as any evidence in the specification or any other evidence submitted by the applicant. The ultimate determination of patentability is based on the entire record, by a preponderance of evidence, with due consideration to the persuasiveness of any arguments and any secondary evidence. *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). The legal standard of "a preponderance of evidence" requires the evidence to be more convincing than the evidence which is offered in opposition to it. With regard to rejections under 35 U.S.C. 103, the examiner must provide evidence which as a whole shows that the legal determination sought to be proved (i.e., the reference teachings establish a *prima facie* case of obviousness) is more probable than not. MPEP 2142.

The test for obviousness is what the combined teachings of the references would have suggested to one of ordinary skill in the art, and all teachings in the prior art must be considered to the extent that they are in analogous arts. Where the teachings of two or more prior art references conflict, the examiner must weigh the power of each reference to suggest solutions to one of ordinary skill in the art, considering the degree to which one reference might accurately discredit another. *In re Young*, 927 F.2d 588, 18 USPQ2d 1089 (Fed. Cir. 1991). MPEP 2143.01.

The mere fact that references <u>can</u> be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990).

With these principles in mind, Applicants respectfully submit that there are sufficiently different suggestive power in the teachings of Herman et al. and both Gever et al. and Noot et al. to prevent their combination. Fundamentally, Applicants submit that these references are non-analogous and have very different purposes and goals. For example, Herman et al. focus on a method and apparatus for mosaic image construction. It is a fundamental feature of Herman et al. that there are a plurality of source images that need to be stitched together to make a final "mosaic" that comprises merging the images to form an image mosaic. See Abstract. Throughout the figures, such as Figure 3b, Figure 4, Figure 7 and Figures 12-14, it is quite clear that the purpose of Herman et al. is to provide novel methods of constructing an image mosaic which requires the selecting of multiple source images and aligning the source images and then selecting source image segments so that enhanced images may be developed and merged to form an image mosaic. The reason one of skill in the art would not likely blend the teachings of Herman et al. with Gever et al. or Noot et al. is that these latter two references relate to producing animated sequences on a graphical display (in the case of Gever et al. as is noted in the Abstract) and again designing in the first instance 2 or 2½ D faces and other graphical objects

as in Noot et al. Accordingly, Gever et al. and Noot et al. both involve in the first instance generating and producing animated characters on the computer. The entire image and animation are controlled and created by the user. As is shown in Gever et al., for example, Figures 8-13a, there is complete control by the person generating the animation to be able to create the 2D or 3D images. Applicants submit that the context of generating animated images from scratch differs in terms of its focus and its purpose then the teachings of Herman et al. which involve stitching multiple separately generated images to form a mosaic. It would not enter into the mind of a person of skill in the art when working with Gever et al. or Noot et al.'s technology to envision any kind of need for creating a mosaic from separate images inasmuch as the entire image is being created by the user through the techniques taught in either Gever et al. or Noot et al.

The Office Action on page 5 asserts that it would be obvious to combine these features because providing marked features on the image file out of the facial expressions to be accurately modeled during animation and further providing a simple method for image domain extrapolation to handle gaps between a moving object and the background image. Applicants respectfully submit that one reason that one of skill in the art would not have the motivation articulated is that the Examiner assumes *a priori* that animation is performed in each of the references. Applicants respectfully submit that Herman et al. fail to teach anything regarding animation but rather in their context of creating an image mosaic necessarily involves only still images. Even when there is an image stream as is shown in Figure 9 of Herman et al., this image stream is not used in the context of animation but is used only in the context of using the individual images to create "an initial mosaic image 718". See column 17, line 58 through column 18, line 3. Therefore, because Herman et al. appear to be exclusively focused on still images, Applicants traverse the assumption in the Office Action that one of skill in the art would

consider Herman et al. to be naturally accommodating to animation. It is simply not and even as is disclosed in the last sentence of the Abstract of Herman et al., the purpose of their invention is for example, "the construction of photographic quality prints form [sic: from] video and digital camera images." Therefore, Applicants respectfully submit that they have provided weightier evidence that Herman et al. is both non-analogous to references that relate to animation and that one of skill in the art would not have sufficient motivation to combine these references.

Furthermore, Applicants submit that even if combined, the combination of references fail to teach limitation of the claims. Turning again to Herman et al., Applicants respectfully submit that the step in claims 34 and 36 which requires that as the animated entity moves an extrapolation method fills voids between the animated entity and the background is not taught. Applicants submit that Herman et al. fail to teach this limitation in column 14, lines 14-44. This portion of column 14 is reproduced as follows:

"Handling Image Boundaries

The individual source images W are defined on the same coordinate system and sample grid as the final mosaic. However, they generally are smaller than the mosaic. When a Laplacian pyramid is constructed for each image W.sub.k it is expedient to extrapolate this image, at least implicitly, to cover an extended image domain, up to the entire domain of the final mosaic. This extension is desirable to ensure that all the samples from the pyramid that contribute to the final mosaic (i.e., those with non-zero weights, Method 1, or that fall within the domain of SR.sub.k, Method 2) have well defined values.

This extrapolation can be done in the original image or can be done as the pyramid is constructed. If done in the original image domain the, extrapolation desirably ensures that no point within the segment SR.sub.k is within a distance d of the boundary of the image where d=D 2.sup.M, where M is the top level of the Laplacian pyramid used in merging and D is a small integer that is related to the size of the filter kernel used in pyramid construction (e.g. D=one-half of the linear filter kernel size for a symmetric filter having an even number of taps). A simple method of image domain extrapolation is to replicate the values of edge pixels. Another method that may be used in mosaic construction is to copy corresponding pixels from other source images. If these other images differ significantly from W.sub.k in exposure characteristics then they may be gray scale transformed to have similar characteristics to W.sub.k. Extrapolation may be done during pyramid construction by such methods as described in "Moment Images, Polynomial Fit Filters, and The Problem of Surface Interpolation," P. J. Burt, ICPR 1988, pp. 300-302."

As can be seen from this discussion, what fails to be taught is anything regarding an animated entity that moves. Again, this portion of Herman et al. discuss handling image boundaries between individual images that will be used in the creation of a final mosaic which as has been noted above, represents a single still image. Accordingly, because Herman et al. fails to teach anything regarding an animated entity that moves, they fail to teach this particular feature of the claims. Furthermore, the Office Action on page 5 asserts that Herman et al. teach that there is an extrapolation method that "fills voids between the animated entity and the background." Applicants respectfully submit that this fails to be taught in the reference inasmuch as Herman et al. focus on creating a final mosaic image from individual separate images that are each essentially considered in the same plane, that they fail to teach this particular limitation. For example, as is clear in such figures as Figure 3b and Figure 7 and columns 1 and 2, the various images that are used as source images are such images drawn from sources drawn from a satellite or space probe images in which because of a limited field of view a number of images are taken of a region and those images need to be merged to create the mosaic. Column 2, lines 10-17, discuss how it is also desirable in the merging step in the mosaic to fill any holes in the mosaic that are left by a lack of any source images to cover some portions of the desired mosaic domain. A method of filling holes is discussed through citing the Burt reference. Applicants simply note that merging one image with another image wherein both are intended to blend together to make a mosaic differs fundamentally from the limitation in claim 1 in which an animated entity moves in front of a background image. This differs fundamentally because again, blending the separate source images in Herman et al. does not involve the concept of one image being in front of another but involves blending a series of images all into the same plane. There is no background in Herman et al. Thus, the extrapolation approach taught in column 14 of Herman et al. fundamentally involves managing the image boundaries "to ensure

that all the samples from the pyramid that contribute to the final mosaic.... have well defined values." Therefore, Applicants respectfully submit that there are numerous reasons why claims 34 and 36 are patentable and in condition for allowance.

Rejection of Claim 35 Under 35 U.S.C. §103(a)

The Office Action rejects claim 35 under 35 U.S.C. §103(a) as being unpatentable over Gever et al. in view of Noot et al. and Herman et al. and further in view of Salesin et al. (U.S. Patent No. 5,666,475) ("Salesin et al."). Applicants submit that inasmuch as claim 35 depends from claim 34 and recites further limitations therefrom, Applicants submit that this claim is patentable as well. Applicants note that they do not acquiesce that it would be obvious to one of skill in the art to combine these references.

Applicants do submit that one of skill in the art would be unlikely to combine Salesin et al. with Gever et al. or Noot et al. inasmuch as Salesin et al. relates to image editing of multiresolution images at fractional-levels of resolution using a wavelet representation. The concept that an image would have multiple levels of resolution such that editing needs to occur would not come to the attention of one of skill in the art. Again, in view of the basic approach of Noot et al. and Gever et al. in which a user is developing in the first instance an animation sequence on a graphic display, when a user is generating images and media as they would in the context of Noot et al. and Gever et al., it is certainly unlikely that any resulting image would have different levels of resolution in different places. Thus, the proposed need for additional editing for the purpose of inputting data representing the image and editing the image to create an edited version of the image as in Salesin et al. certainly would be and unnecessary addition of work which would not be required where the original image is being generated by a designer as would happen in Noot et al. and Gever et al. Accordingly, Applicants submit that the preponderance of the evidence is against it being obvious to one of skill in the art to need to have

the features of Salesin et al. regarding zooming and editing portions of a multiresolution image of arbitrary size within the teachings of Gever et al. and Noot et al.

Accordingly, Applicants respectfully submit that the present application is in condition for allowance and a notice to that fact is earnestly solicited.

CONCLUSION

Having addressed all rejections and objections, Applicants respectfully submit that the

subject application is in condition for allowance and a Notice to that effect is earnestly solicited.

If necessary, the Commissioner for Patents is authorized to charge or credit the **Novak, Druce &**

Quigg, LLP, Account No. 14-1437 for any deficiency or overpayment.

Respectfully submitted,

Date: October 4, 2007   By: _____

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